

MATRIX

PREMIUM SERIES
ASCENT TRAINER
ELLIPTICAL

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CHAPTER 1: IMPORTANT SAFETY INSTRUCTIONS

1.1 BEFORE GETTING STARTED

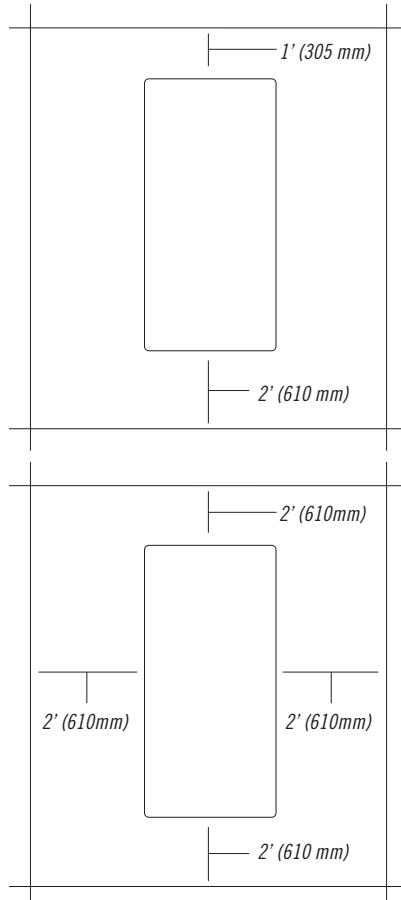
It is the sole responsibility of the purchaser of Matrix Fitness Systems products to instruct all individuals, whether they are the end user or supervising personnel, on proper usage of the equipment.

It is recommended that all users of Matrix Fitness Systems exercise equipment be informed of the following information prior to its use.

1.2 PROPER USAGE

Do not use the equipment in any way other than designed or intended by the manufacturer. It is imperative that all Matrix Fitness Systems equipment is used properly to avoid injury.

- Keep hands and feet clear of moving parts at all times to avoid injury.
- Unsupervised children must be kept away from this equipment.
- Do not wear loose clothing while on equipment.



ASCENT

Please leave a 24" (610 mm) behind the ascent. This zone is to allow easy access to the ascent and gives the user an easy exit path from the machine.

ELLIPTICAL

Please leave a 24" (610 mm) clearance on one side of the elliptical and 24" (610 mm) either in front or behind for easy access of the machine.

1.3 READ AND SAVE THESE INSTRUCTIONS

This machine is intended for commercial use. To ensure your safety and protect the equipment, read all instructions before operating the MATRIX machine.

When using an electrical product, basic precautions should always be followed including the following:

DANGER: To reduce the risk of electric shock: Always unplug this equipment from the electrical outlet immediately after using and before cleaning.

WARNING: To reduce the risk of burns, fire, electrical shock or injury to persons that may be associated with using this product.

- An appliance should never be left unattended when plugged in. Unplug from outlet when not in use and before putting on or taking off parts.
- This product must be used for its intended purpose described in this lower case owner's manual. Do not use other attachments that are not recommended by the manufacturer. Attachments may cause injury.
- To prevent electrical shock, never drop or insert any object into any opening.
- Do not remove the console covers. Service should only be done by an authorized service technician.
- Never operate the elliptical with the air opening blocked. Keep the air opening clean, free of lint and hair.
- Never operate product if it has a damaged cord or plug, if it is working properly, if it has been damaged, or immersed in water. Return the unit to a service center for examination and repair.
- Do not carry this unit by its supply cord or use the cord as a handle.
- Keep any power cord away from heated surfaces.
- Close supervision is necessary when elliptical is used by or near children or disable persons.
- Do not use outdoors.
- Do not operate where aerosol (spray) products are being used or when oxygen is being administered.
- To disconnect, turn all controls to the off position, then remove plug from outlet.
- Connect this elliptical to a properly grounded outlet only.
- This unit is not equipped with a free wheel. Pedal speed should be reduced in a controlled manner.
- Care should be used when mounting or dismounting the equipment. Before mounting or dismounting move the pedal on the mounting or dismounting side to its lowest position and bring the machine to a complete stop.

CAUTION: If you experience chest pain, nausea, dizziness or shortness of breath, STOP exercising immediately and consult a physician before continuing.

CHAPTER 1: IMPORTANT SAFETY INSTRUCTIONS

1.4 ELECTRICAL REQUIREMENTS

The Matrix Ascent Trainer and ellipticals have different electrical requirements depending on the model chosen. The chart below should assist you with your facility planning:

5x: These products are designed to be self powered and do not require an external power supply source to operate. However, these units can be AC powered if an optional power cord is purchased. This will power the console at all times and requires no minimum RPM for operation. Ellipticals can be daisy-chained together, up to 4 units per dedicated 15 amp circuit, using a Matrix daisy-chain cord adapter (sold separately). Ascent Trainers can be daisy-chained together, up to 3 units per dedicated 15 amp circuit or 4 per 20 amp circuit, using a Matrix daisy-chain cord adapter (sold separately).

7x: These products can operate without power; however, the machine must boot the software with each new user. This can mean a delay of up to 35 seconds while the machine's operating system prepares for a workout. It's similar to turning your cell phone on for the 1st time of the day. These units can also be AC powered. This will power the console at all times and requires no minimum RPM for operation. A powered product lowers the starting resistance and is easier to use for beginners. Ellipticals can be daisy-chained together, up to 4 units per dedicated 15 amp circuit, using a Matrix daisy-chain cord adapter (sold separately). Ascent Trainers can be daisy-chained together, up to 3 units per dedicated 15 amp circuit or 4 per 20 amp circuit, using a Matrix daisy-chain cord adapter (sold separately).

7xe: These products must be AC powered. Ellipticals can be daisy-chained together, up to 4 units per dedicated 15 amp circuit, using a Matrix daisy-chain cord adapter (sold separately). Ascent Trainers can be daisy-chained together, up to 4 units per dedicated 15 amp circuit, using a Matrix daisy-chain cord adapter (sold separately).

For your safety and for the performance of your Matrix product, the ground on your circuits must be non-looped. Please refer to NEC article 210-21 and 210-23. Any alterations to the standard Matrix power cords will void all warranties.

1.5 DEDICATED CIRCUIT AND ELECTRICAL INFO

All Matrix Ascent Trainers require the use of a 15 amp or 20 amp "dedicated circuit," with a non-looped (isolated) neutral/ground, for the power requirement. Quite simply this means that each outlet you plug into should not have anything else running on that same circuit. The easiest way to verify this is to locate the main circuit breaker box, and turn off the breaker(s) one at a time. Once a breaker has been turned off, the only thing that should not have power to it are the units in question. No lamps, vending machines, fans, sound systems, or any other item should lose power when you perform this test.

Non-looped (isolated) neutral/grounding means that each circuit must have an individual neutral/ground connection coming from it, and terminating at an approved earth ground. You cannot "jumper" a single neutral/ground from one circuit to the next.

In addition to the dedicated circuit requirement, the proper gauge wire must be used from the circuit breaker box, to each outlet that will have the maximum number of units running off of it. If the distance from the circuit breaker box, to each outlet, is 100 ft or less, then 12 gauge wire may be used. For any distance greater than 100 ft from the circuit breaker box to the outlet, 10 gauge wire must be used.

CHAPTER 2: PREVENTATIVE MAINTENANCE

1.6 GROUNDING INSTRUCTIONS

When plugging the units in, they must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. The Ascent Trainer and elliptical is equipped with a cord having an equipment-grounding conductor and a grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances. If the user does not follow these grounding Instructions, the user could void the Matrix limited warranty.

DANGER: Improper connection of the equipment-grounding conductor can result in the risk of electric shock. Check with a qualified electrician or serviceman if the user is in doubt as to whether the product is properly grounded. Do not modify the plug provided with the product if it will not fit the outlet; have a proper outlet installed by a qualified technician.

2.1 RECOMMENDED CLEANING TIPS

Preventative maintenance and daily cleaning will prolong the life and look of your MATRIX Ascent Trainer or Elliptical.

Please read and follow these tips.

- Position the equipment away from direct sunlight. The intense UV light can cause discoloration on plastics.
- Locate your equipment in an area with cool temperatures and low humidity.
- Clean with a soft 100% cotton cloth.
- Clean with soap and water or other non-ammonia based all purpose cleaners.
- Wipe foot pads, handles, heart rate grips, and handlebars clean after each use.
- Do not pour liquids directly onto your equipment. This can cause damage to the equipment and in some cases electrocution.
- Check pedal motion and stability.
- Adjust leveling feet when equipment wobbles or rocks.
- Maintain a clean area around equipment, free from dust and dirt.

2.2 CHECK FOR DAMAGED PARTS

DO NOT use any equipment that is damaged or has worn or broken parts. Use only replacement parts supplied by Matrix Fitness Systems.

MAINTAIN LABELS AND NAMEPLATES. Do not remove labels for any reason. They contain important information. If unreadable or missing, contact Matrix Fitness Systems for a replacement. 1-866-693-4863, www.matrixfitness.com

MAINTAIN ALL EQUIPMENT Preventative maintenance is the key to smooth operating equipment. Equipment needs to be inspected at regular intervals. Defective components must be replaced immediately. Improperly working equipment must be kept out of use until it is repaired. Ensure that any person(s) making adjustments or performing maintenance or repair of any kind is qualified to do so. Matrix Fitness Systems will provide service and maintenance training at our corporate facility upon request or in the field if proper arrangements are made.

CHAPTER 2: PREVENTATIVE MAINTENANCE

2.3 CARE AND MAINTENANCE INSTRUCTIONS

In order to maximize life span, and minimize down time, all MATRIX equipment requires regular cleaning, and maintenance items performed on a scheduled basis. This section contains detailed instructions on how to perform these items, the frequency of which they should be done, and a check list to sign off each time service is completed for a specific machine. Some basic tools and supplies will be necessary to perform these tasks which include (but may not be limited to):

Metric Allen wrenches
#2 Phillips head screwdriver
Adjustable wrench
Torque wrench (capability to read foot lbs, and inch lbs)
Lint free cleaning cloths
Teflon based spray lubricant
Mild, water soluble, detergent – such as “Simple Green”, or other Matrix approved product
Teflon based spray lubricant such as “Super Lube”, or other Matrix approved product
Vacuum cleaner w/extendable hose and crevasse tool attachment

Please find the worksheet sample for our equipment provided in this manual and make copies as needed, keeping them up to date as the required service/maintenance items are performed. It is critical that you also log the accumulated (total) amount of miles or running hours on the equipment each time service or maintenance is performed.

You may periodically see addendums to this document, as the Matrix Technical Support Team identifies items that require specific attention, the latest version will always be available on the Matrix website, matrixfitness.com

DAILY MAINTENANCE ITEMS

- 1) Clean entire machine use water and mild detergent such as “Simple Green”, or other Matrix approved solution (cleaning agents should be alcohol and ammonia free).

QUARTERLY MAINTENANCE ITEMS

- 1) Check all connecting joint areas for tightness of bolt assemblies.
- 2) Ensure that there is little, or no free play at all joint assemblies once bolts have been tightened. Installation of washer kits may be required if free play does not come out from tightening bolts.
- 3) Remove plastic covers, and lubricate ball joint where the Link Arm and Handlebar join together. A grease gun, with a needle fitting adapter is required for this (Matrix recommends using Superlube brand grease with PTFE (Teflon) additive).
- 4) Remove plastic covers, and lubricate Acme screw on left and right incline motors (Matrix recommends using Superlube brand grease with PTFE (Teflon) additive). See section 9.11 for incline motor access instructions.

2.4 PREVENTATIVE MAINTENANCE CHECKLIST

Facility: _____

MAKE:	MODEL:	S/N
LOCATION:	TECHNICIAN:	DATE:

Inspect power cords _____ Check resistance system _____ Clean/lube guide rods
Check E-stop cord/button _____ Lubricate pivot points _____ Inspect belt/cable assy.
Vacuum/clean under cover _____ Check connecting joints _____ Check locking pins
Check motor drive belt _____ Remove covers, check belts _____ Check pulleys
Check running belt _____ Check pedal & crank _____ Inspect upholstery
Flip/replace deck _____ Check/lube seat adjustment _____ Check/tighten hardware
De-wax rollers _____ Verify electronics operation _____ Lubricate Acme screw
Notes/Comments _____

MAKE:	MODEL:	S/N
LOCATION:	TECHNICIAN:	DATE:

Inspect power cords _____ Check resistance system _____ Clean/lube guide rods
Check E-stop cord/button _____ Lubricate pivot points _____ Inspect belt/cable assy.
Vacuum/clean under cover _____ Check connecting joints _____ Check locking pins
Check motor drive belt _____ Remove covers, check belts _____ Check pulleys
Check running belt _____ Check pedal & crank _____ Inspect upholstery
Flip/replace deck _____ Check/lube seat adjustment _____ Check/tighten hardware
De-wax rollers _____ Verify electronics operation _____ Lubricate Acme screw
Notes/Comments _____

CHAPTER 3: USING MANAGER PREFERENCE

3.1 USING MANAGER PREFERENCE MODE

5x Consoles:

This section allows a user to manipulate default settings for the machines. It may be accessed by pressing the **LEVEL UP/LEVEL DOWN** keys simultaneously for 5 seconds. To change a setting, press “**ENTER**” on the keypad and use the Level buttons and numeric keypad to change the values. Pressing “**ENTER**” again will save the change. Pressing “Back” will bring you to the previous menu. To exit manager’s mode, hold “**STOP**” down for 5 seconds. Below is a list of the settings.

7x Consoles:

This section allows a user to manipulate default settings for the machines. It may be accessed by pressing “**ENTER**”, **1, 0, 0, 1**, “**ENTER**” on the upper numeric key pad. To change a setting, press “**ENTER**” on the keypad and use the Level buttons and numeric keypad to change the values. Pressing “**ENTER**” again will save the change. Pressing “Back” will bring you to the previous menu. To exit manager’s mode, press the “**HOME**” key. Below is a list of the settings.

7xe Consoles:

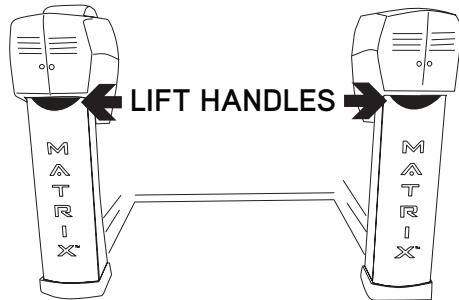
This section allows a user to manipulate default settings for the machines. It may be accessed by pressing “**ENTER**”, **1, 0, 0, 1**, “**ENTER**”. To change a setting, press “**ENTER**” on the keypad and use the Level buttons and numeric keypad to change the values. Pressing “**ENTER**” again will save the change. Pressing “Back” will bring you to the previous menu. To exit manager’s mode, press the “**HOME**” key. Below is a list of the settings.

Maximum Time
Default Time
Default Level
Default Age
Default Weight
Accumulated Distance
Accumulated Time
Software Version
Timer Mode
Default Incline (Ascent Trainer Only)
Speed/Distance Mode
Out of Order
Gender
Language
Sound Mode
Incline Reset (Ascent Trainer Only)

CHAPTER 4: MOVING THE UNIT

4.1 ASCENT TRAINER

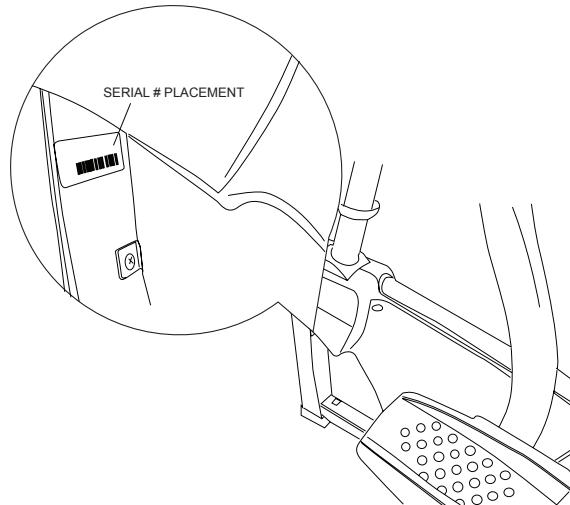
Two hand holds are located just above the MATRIX logo on the rear legs of the Ascent Trainer.



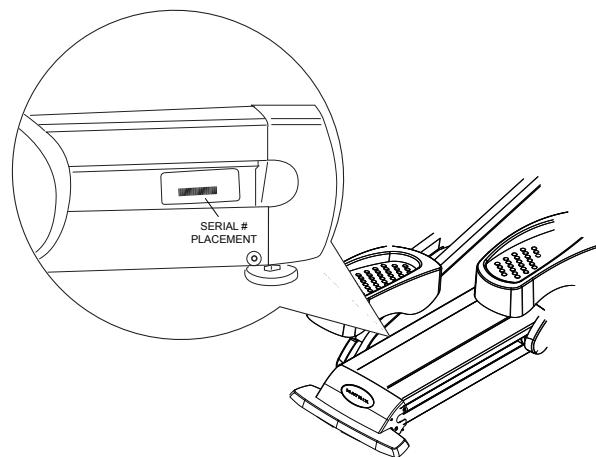
To avoid injury to the user and the unit, be sure to have proper assistance to move the unit.

CHAPTER 5: SERIAL NUMBER LOCATION

5.1 ASCENT TRAINER

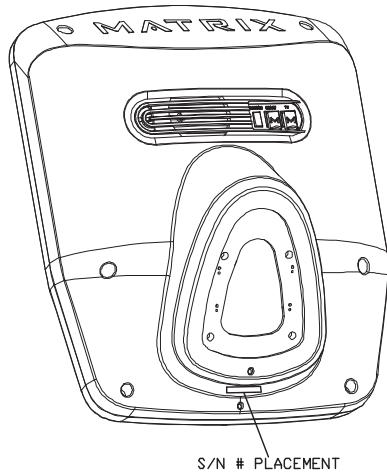


5.2 ELLIPTICAL



CHAPTER 5: SERIAL NUMBER LOCATION

5.3 UNIVERSAL CONSOLE SERIAL NUMBER LOCATION



CHAPTER 6: E5xc OVERLAY AND WORKOUT DESCRIPTION

6.1 E5xc CONSOLE DESCRIPTION

The MATRIX Elliptical is inspected before it is packaged. It is shipped in two pieces: the base and the console. Carefully unpack the unit and dispose of the box material.



WORKOUT KEYS: Simple program view and selection buttons.

GO: One touch Start.

ENTER: To confirm each program setting.

UP/DOWN LEVEL: Easy information and level selection.

UP/DOWN TIME: Easy information and time adjustment.

STOP: Ends workout and shows workout summary data.

NUMBER KEYPAD: Workout data input for workout setup. Level adjustment during workout.

COOL DOWN: Puts the Elliptical into Cool Down mode.

FAN: Allows for fan speed selection (fan has three operating speeds.)

TOGGLE DISPLAY: Allows user to select what information is displayed on the console.

CHAPTER 6: A5x OVERLAY AND WORKOUT DESCRIPTION

A5x CONSOLE DESCRIPTION

The MATRIX Ascent is inspected before it is packaged. It is shipped in two pieces: the base and the console. Carefully unpack the unit and dispose of the box material.



WORKOUT KEYS: Simple program view and selection buttons.

GO: One touch Start.

ENTER: To confirm each program setting.

UP/DOWN INCLINE: Easy information and incline selection.

UP/DOWN LEVEL: Easy information and level selection.

UP/DOWN TIME: Easy information and time adjustment.

STOP: Ends workout and shows workout summary data.

NUMBER KEYPAD: Workout data input for workout setup. Level adjustment during workout.

COOL DOWN: Puts the Ascent into Cool Down mode.

FAN: Allows for fan speed selection (fan has three operating speeds.)

CHAPTER 6: E7xc OVERLAY AND WORKOUT DESCRIPTION

E7xc CONSOLE DESCRIPTION

The MATRIX Elliptical is inspected before it is packaged. It is shipped in two pieces: the base and the console. Carefully unpack the unit and dispose of the box material.



MULTI-PURPOSE KEYS: Keys have different functions depending on each screen.

GO: One touch Start.

ENTER: To confirm each program setting.

UP/DOWN LEVEL: Easy information and level selection.

UP/DOWN TIME: Easy information and time adjustment.

STOP: Ends workout and shows workout summary data.

NUMBER KEYPAD: Workout data input for workout setup. Level adjustment during workout.

COOL DOWN: Puts the Elliptical into Cool Down mode.

FAN: Allows for fan speed selection (fan has three operating speeds.)

E7xc ENTERTAINMENT ZONE

iPOD®: Will take the user directly to the iPod screen to allow for iPod control and playlist selection.

VOLUME UP/DOWN: Adjusts the volume output through the headphone jack of the integrated console TV or iPod output.

NUMBER KEYPAD: Allows for easy TV channel selections.

CHANNEL UP/DOWN: Allows for channel selection.

DISPLAY MODE: Allows user to cycle through console display options, iPod, TV or profile display.

LAST CHANNEL: Allows the user to cycle between the current channel and the previous channel they were viewing.

CHAPTER 6: A7x OVERLAY AND WORKOUT DESCRIPTION

A7x CONSOLE DESCRIPTION

The MATRIX Ascent is inspected before it is packaged. It is shipped in two pieces: the base and the console. Carefully unpack the unit and dispose of the box material.



MULTI-PURPOSE KEYS: Keys have different functions depending on each screen.

GO: One touch Start.

ENTER: To confirm each program setting.

UP/DOWN INCLINE: Easy information and incline selection.

UP/DOWN LEVEL: Easy information and level selection.

UP/DOWN TIME: Easy information and time adjustment.

STOP: Ends workout and shows workout summary data.

NUMBER KEYPAD: Workout data input for workout setup. Level adjustment during workout.

COOL DOWN: Puts the Ascent into Cool Down mode.

FAN: Allows for fan speed selection (fan has three operating speeds.)

A7x ENTERTAINMENT ZONE

iPOD®: Will take the user directly to the iPod screen to allow for iPod control and playlist selection.

VOLUME UP/DOWN: Adjusts the volume output through the headphone jack of either integrated console TV or iPod output.

NUMBER KEYPAD: Allows for easy TV channel selections.

CHANNEL UP/DOWN: Allows for channel selection.

DISPLAY MODE: Allows user to cycle through console display options, iPod, TV or profile display.

LAST CHANNEL: Allows the user to cycle between the current channel and the previous channel they were viewing.

CHAPTER 6: E7xe / A7xe OVERLAY AND WORKOUT DESCRIPTION

E7xe / A7xe CONSOLE DESCRIPTION

The MATRIX Elliptical / Ascent is inspected before it is packaged. It is shipped in two pieces: the base and the console. Carefully unpack the unit and dispose of the box material.



The E7xe / A7xe has a full integrated touch screen display. All information required for workouts is explained on screen. Exploration of the interface is highly encouraged. The information explaining how to program for various workouts will give an explanation about the contents of each screen on the machine.

E7xe ENTERTAINMENT ZONE

iPOD®: Will take the user directly to the iPod screen to allow for iPod control and playlist selection.

VOLUME UP/DOWN: Adjusts the volume output through the headphone jack of the integrated console TV or iPod output.

NUMBER KEYPAD: Allows for easy TV channel selections.

CHANNEL UP/DOWN: Allows for channel selection.

DISPLAY MODE: Allows user to cycle through console display options, iPod, TV or profile display.

LAST CHANNEL: Allows the user to cycle between the current channel and the previous channel they were viewing.

QUICK START: One-touch start. Starts a manual workout.

CHAPTER 6: 5x, 7x, 7xe OVERLAY AND WORKOUT DESCRIPTION

6.2 MANUAL WORKOUT OPERATION

QUICK START OPERATION

Press the **GO** button and the machine will enter into a manual mode of operation. All energy expenditure values will be calculated using the default weight measurement.

MANUAL WORKOUT OPERATION

Manual is a workout that allows you to manually adjust the level values at anytime. The manual workout also contains a setup screen which allows you to input your weight to help calculate a more accurate caloric burn rate.

To enter into this workout on a 5x, use the following guidelines:

1. Choose **MANUAL** by selecting the manual workout button and press **ENTER**.
2. Enter the desired workout length using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
3. Enter user weight (user weight is used to calculate the caloric expenditure value-providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
4. Enter the desired initial level using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

To enter into this workout on a 7x or 7xe, follow the onscreen prompts.

6.3 OPERATING LEVEL BASED PROGRAMS

Your Matrix machine offers a variety of level-based workouts to challenge users of all fitness levels. The following information will briefly explain the workout and how to program the machine for each workout selection.

ROLLING HILLS WORKOUT OPERATION

Rolling hills is a level-based workout that automatically adjusts the resistance value to simulate walking or running up hills.

1. Choose **ROLLING HILLS** by selecting the rolling hills workout button and press **ENTER**.
2. Enter the desired intensity using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
3. Enter the desired workout length using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
4. Enter user weight (user weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

To enter into this workout on a 7x or 7xe, follow the onscreen prompts.

FAT BURN WORKOUT OPERATION

Fat burn is a level-based workout that is designed to help user's burn fat through various resistance changes.

To enter into this workout on a 5x, use the following guidelines:

1. Choose **FAT BURN** by selecting the fat burn workout button and press **ENTER**.
2. Enter the desired intensity level using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

3. Enter the desired workout length using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

4. Enter user weight (user weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

To enter into this workout on a 7x or 7xe, follow the onscreen prompts.

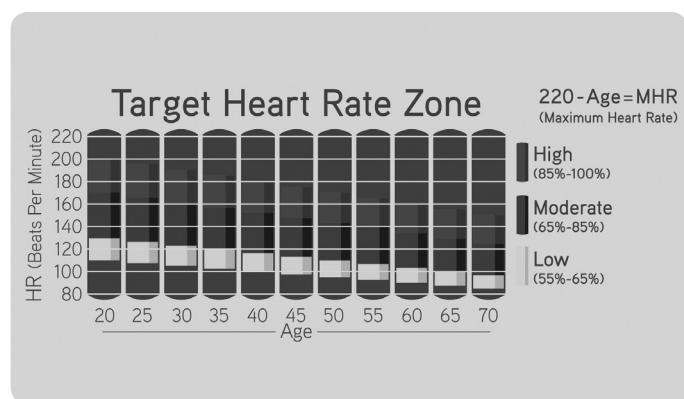
6.4 HEART RATE CONTROL WORKOUT OPERATION

Your Matrix machine offers a heart rate control workout mode. The heart rate control workout mode allows the user to program their desired heart rate zone and the Elliptical will automatically adjust the level based upon the user's heart rate. The heart rate zone is calculated using the following equation: $(220-Age)*\% = \text{target heart rate zone}$. The user must wear a telemetric heart rate monitor or continually hold onto the contact heart rate grips for this workout.

To enter into this workout on a 5x, use the following guidelines:

1. Choose **TARGET HEART RATE** by selecting the target heart rate workout button and press **ENTER**.
2. Enter age using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
3. Enter the desired percent of maximum heart rate using the **ARROW KEYS** and press **ENTER**.
4. Enter the desired workout length using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.
5. Enter user weight (user weight is used to calculate the caloric expenditure value, providing an accurate weight helps to ensure an accurate caloric expenditure rating for each user) using the **ARROW KEYS** or the **NUMBER KEYPAD** and press **ENTER**.

To enter into this workout on a 7x or 7xe, follow the onscreen prompts.



CHAPTER 6: 5x, 7x, 7xE OVERLAY AND WORKOUT DESCRIPTION

6.5 GLUTE TRAINING WORKOUT (ASCENT ONLY)

This program was designed to increase your range of motion and target the thighs and glutes. By varying a high incline throughout the workout you can engage significant glute recruitment and enjoy a great workout. You will be asked to enter in a minimum resistance level and maximum resistance level. The maximum resistance is applied at your peaks and the minimum resistance is applied in the valleys. Choose levels that are appropriate for you. A great recommended starting point is a Minimum Resistance Level of 1 and a Maximum Resistance Level of 8. After you are comfortable with this setting, try higher levels for both. Incline levels cannot be adjust during this workout as it is an incline-based workout.

Simply follow the prompts for further instruction.

6.6 FIT TEST

This test measures cardiovascular fitness and proves an estimated sub-maximal VO2 result. It is based on power output according to ACSM standards and was developed by the Cooper Institute (© www.cooperinstitute.org)

User RPMs must remain between 60-80 RPM during the test.

The test will end when the user can no longer maintain this speed. Use of a heart rate strap is optional but provides more data.

The test starts at a low intensity level and gradually increases in intensity (difficulty) every 2 minutes. As it increases, the user must maintain 60-80RPM to advance to the next level. The test could take upwards of 30+ minutes for very fit individuals. Once the test ends a recovery period (cool down) will begin and the user's results are calculated and displayed. Results are based on the number of stages completed:

Stage Complete:

1	Well Below Average
2	Well Below Average
3	Below Average
4	Below Average
5	Average
6	Average
7	Above Average
8	Above Average
9+	Well Above Average

ASCENT ONLY: Incline will not be adjustable during the test.

CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

7.1 E5xc, E7xc, E7xe MODEL SPECIFICATIONS

	E7xe Elliptical	E7xc Elliptical	E5xc Elliptical
FEATURES			
Stride length	21"	21"	21"
Contact & telemetric HR sensors	Yes	Yes	Yes
Cushioned footpads	Yes	Yes	Yes
Incline range	N/A	N/A	N/A
Q-factor	3.5"	3.5"	3.5"
Handlebar design	Multi-position dual action and ergo-bend stationary	Multi-position dual action and ergo-bend stationary	Multi-position dual action and ergo-bend stationary
Thumb switch controls	Yes	Yes	Yes
RESISTANCE SYSTEM			
Technology	JID brushless generator	JID brushless generator	JID brushless generator
Power requirements	Powered 120v/60Hz AC	Self-power/ 120v/60Hz AC power option	Self-power/ 120v/60Hz AC power option
Minimum watts	22	22	22
Minimum RPM	N/A	N/A powered / 25 self-powered	N/A powered / 25 self-powered
CONSOLE			
Display type	15" touch screen LCD	7" LCD	Dot-matrix LED
Display feedback	Time, distance (kilometers or miles), calories, calories per hour, speed, RPM, heart rate, METs, watts, dynamic profile display, static profile display	Time, distance (kilometers or miles), calories, calories per hour, speed, RPM, heart rate, METs, watts, profile	Time, distance, calories, speed, heart rate, METs, watts, RPM
User defined multi-language display	Yes-English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Japanese	Yes-English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Japanese	No
Resistance levels	25	25	25
Workouts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts
CSAFE, FitLinxx ready	Yes	Yes	Yes
On-the-fly program change	Yes	Yes	Yes
FitTouch™ Technology	Yes	No	No
Integrated Vista Clear™ digital ready television	Yes - 15" screen size	Yes - 7" screen size	No
Wireless data transmitter	Yes	Yes	Yes
iPod compatible	Yes	Yes	No
Nike + iPod compatible	Yes	Yes	No
Personal fan	Yes	Yes	Yes
TECH SPECS			
Overall dimensions	75.5" L x 29" W x 71" H	75.5" L x 29" W x 71" H	75.5" L x 29" W x 71" H
Maximum user weight	400lbs	400lbs	400lbs
Weight	312lbs	310lbs	309lbs
Shipping weight	352lbs	350lbs	349lbs
Electrical requirements	AC powered	Self-power, power optional	Self-power, power optional
WARRANTY			
Frame	7 years	7 years	7 years
JID generator	5 years	5 years	5 years
Parts & labor	3 years CAP	3 years CAP	3 years CAP

CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

7.2 E5xc, E7xc, E7xe MODEL REQUIRED FASTENERS

FASTENERS				
REFERENCE	SKETCH	DESCRIPTION	QUANTITY	PACKAGE COLOR
Z31		SOCKET HEAD CAP SCREW(M8x20L)	8	PINK
Z32		WASHER(Ø8.4xØ15.5x1.6t)	8	PINK
Z13		SOCKET HEAD CAP SCREW(M10x15L)	2	RED
Z03		BUTTON HEAD MACHINE SCREW(M5x10L)	4	WHITE
Z14		SOCKET HEAD CAP SCREW(M8x20L)	2	RED
Z01		SOCKET HEAD CAP SCREW(M8x15L)	8	GREEN
Z34		SOCKET HEAD CAP SCREW(M8x25L)	2	BLUE
Z01		SOCKET HEAD CAP SCREW(M8x15L)	6	ORANGE
Z02		WAVE WASHER(Ø20.5xØ29x1.5t)	2	ORANGE
Z08		WAVE WASHER(Ø20.7xØ29.1x0.3t)	2	ORANGE
Z09		FLAT HEAD SOCKET SCREW(M5x12L)	8	BLACK
E42		CONNECT PLATE	2	ORANGE
Z03		SOCKET HEAD CAP SCREW(M5x10L)	6	YELLOW
Z05		SOCKET HEAD CAP SCREW(M8x55L)	2	YELLOW
Z06		WASHER(Ø8.2xØ16x1.0t)	2	YELLOW
Z07		NYLON NUT(M8x1.25P)	2	YELLOW
Z30		AXLE	4	YELLOW
Z04		SOCKET HEAD CAP SCREW(M8x65L)	4	YELLOW
Z41		BUTTON HEAD MACHINE SCREW(M5x8L)	5	

CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

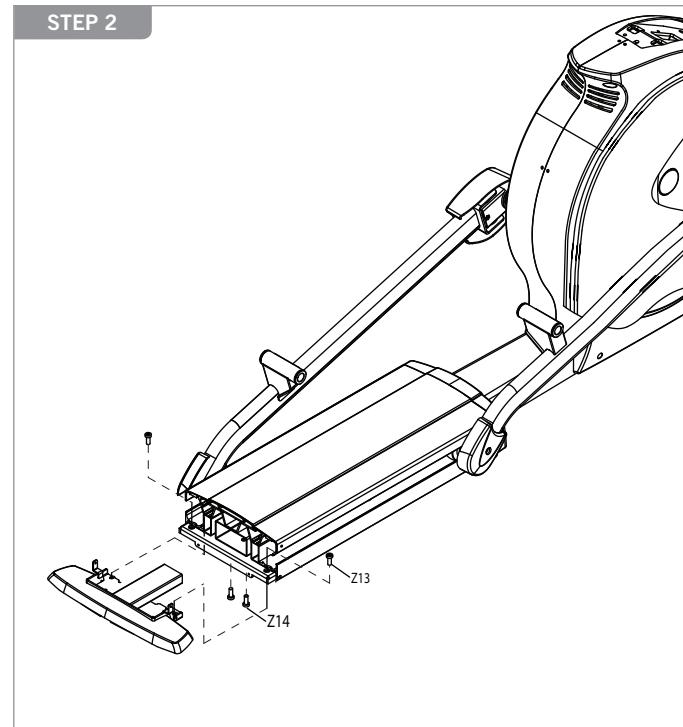
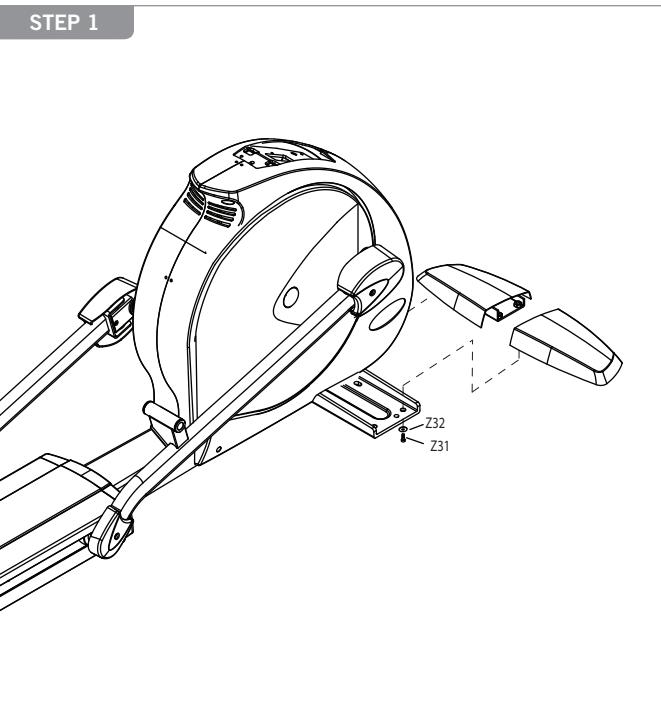
7.3 E5xc, E7xc, E7xe MODEL ASSEMBLY STEPS

Prior to assembling the Elliptical, unpack all of the contents of the box and make sure that all necessary components are present. Review the contents of the hardware package for completeness. Contact Matrix customer service at 866.693.4863 to report any missing items.

• ASSEMBLY INSTRUCTIONS

Please make sure that the power plug is not plugged into the wall outlet while completing the following procedure. To ensure correct assembly of the Elliptical, carefully read and follow these steps:

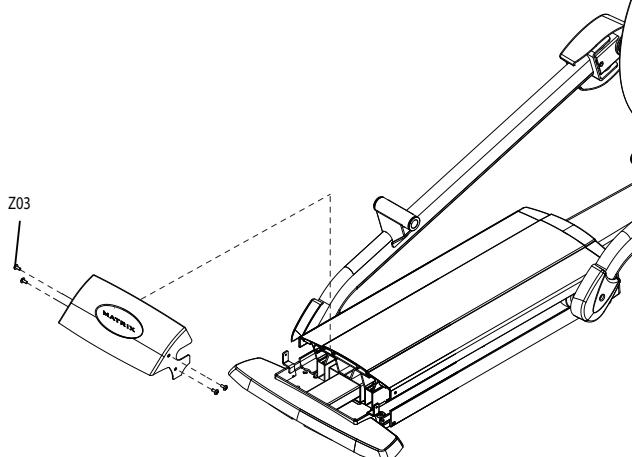
*Assembly steps are shown using a E5xc. Assembly steps for E7xc and E7xe are identical to what is shown below.



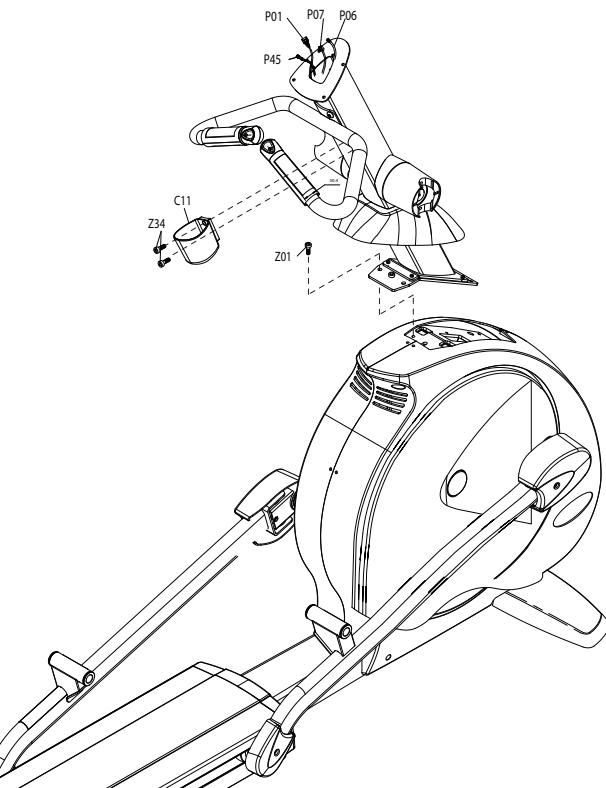
CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

7.3 E5xc, E7xc, E7xe MODEL ASSEMBLY STEPS

STEP 3

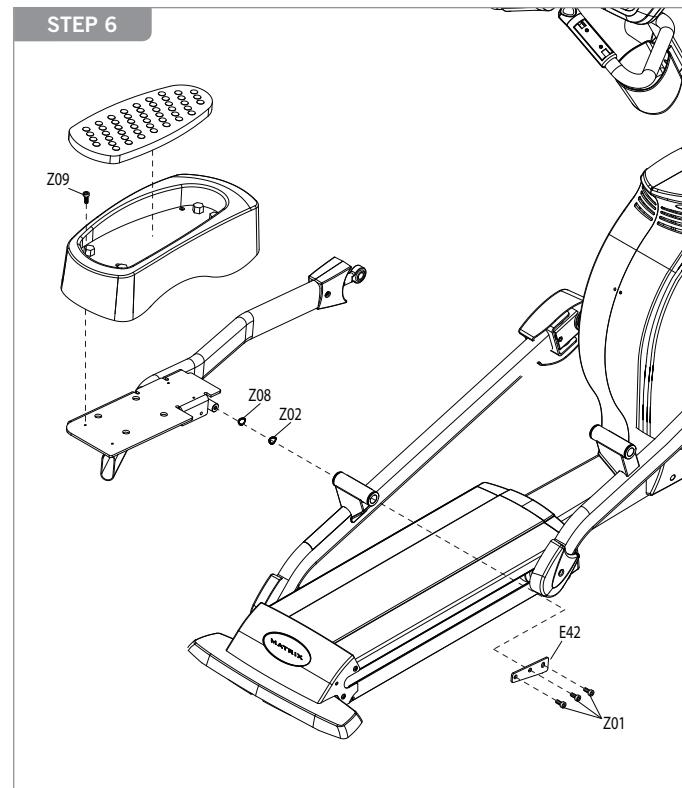
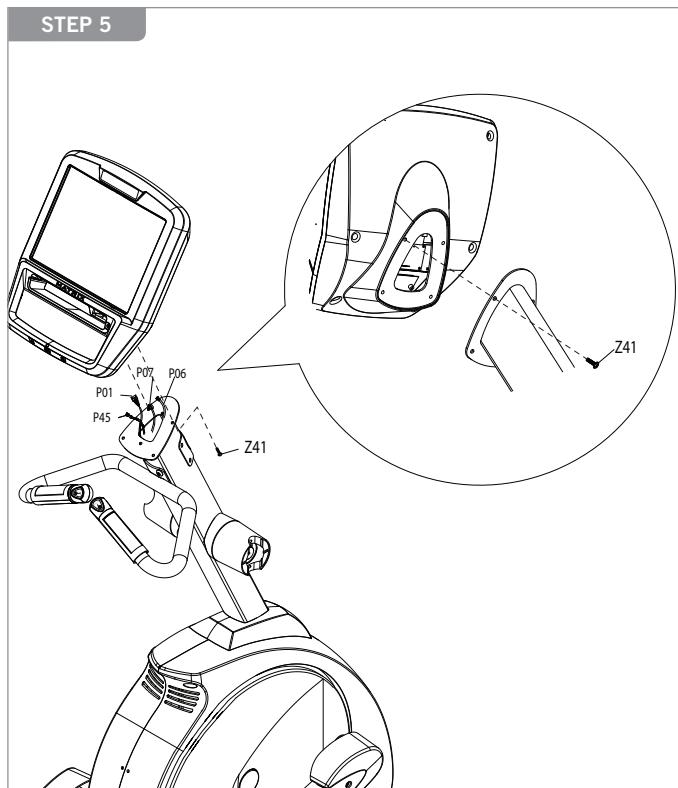


STEP 4



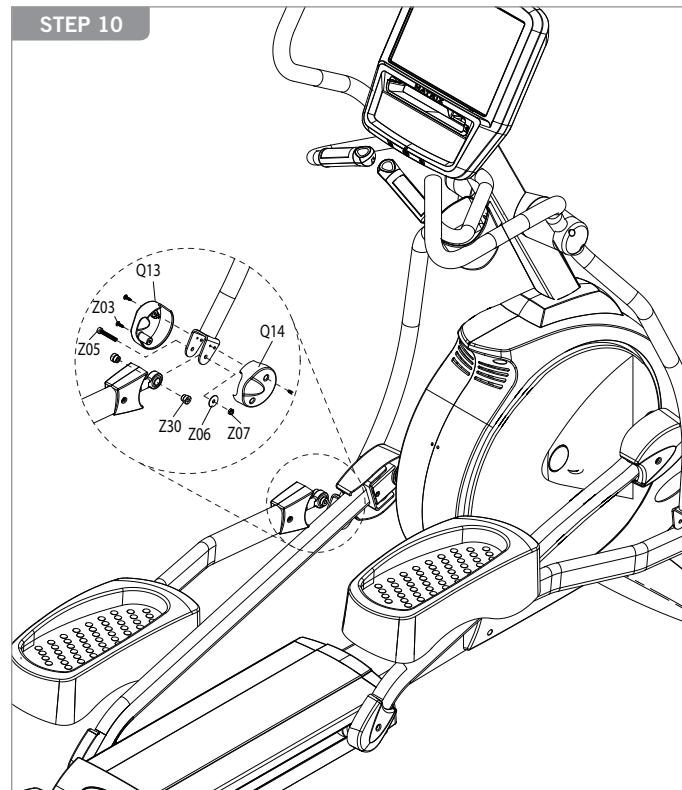
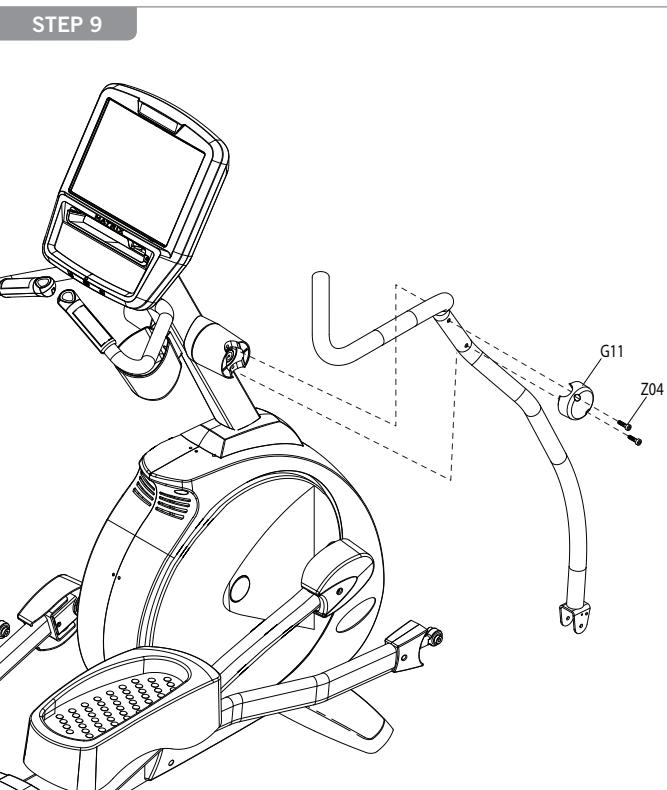
CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

7.3 E5xc, E7xc, E7xe MODEL ASSEMBLY STEPS

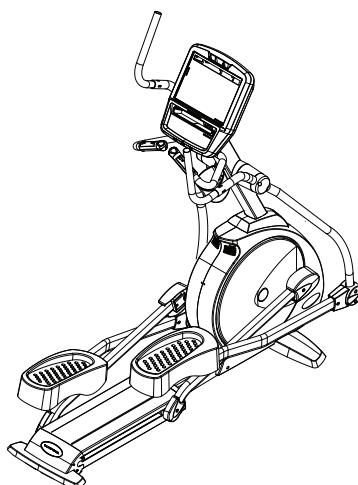


CHAPTER 7: E5xc, E7xc, E7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

7.3 E5xc, E7xc, E7xe MODEL ASSEMBLY STEPS



ASSEMBLY COMPLETE



CHAPTER 8: A5x, A7x, A7xe ELLIPTICAL SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

8.1 A5x, A7x, A7xe MODEL SPECIFICATIONS

	A7xe Elliptical	A7x Elliptical	A5x Elliptical
FEATURES			
Stride length	21" - 24"	21" - 24"	21" - 24"
Contact & telemetric HR sensors	Yes	Yes	Yes
Cushioned footpads	Yes	Yes	Yes
Incline range	30 degrees	30 degrees	30 degrees
Q-factor	3.75"	3.75"	3.75"
Handlebar design	Multi-position dual action and ergo-bend stationary	Multi-position dual action and ergo-bend stationary	Multi-position dual action and ergo-bend stationary
Thumb switch controls	Yes	Yes	Yes
RESISTANCE SYSTEM			
Technology	JID Generator	JID Generator	JID Generator
Power requirements	Powered 120v/60Hz AC	Self-Powered/Powered 120v/60Hz AC	Self-Powered/Powered 120v/60Hz AC
Minimum watts	14	35	24
Minimum RPM	N/A	N/A Powered / 25 Self-Powered	N/A Powered / 25 Self-Powered
CONSOLE			
Display type	15" touch screen LCD	7" LCD	Dot-matrix LED
Display feedback	Time, distance (kilometers or miles), calories, calories per hour, speed, incline, RPM, heart rate, METs, watts, dynamic profile display, static profile display	Time, distance (kilometers or miles), calories, calories per hour, level, speed, RPM, incline, heart rate, METs, watts, profile	Time, distance, calories, speed, incline, heart rate, METs, watts, level, RPM
User defined multi-language display	Yes-English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Japanese	Yes-English, German, French, Italian, Spanish, Dutch, Portuguese, Chinese, Japanese	No
Resistance levels	25	25	25
Workouts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts	Manual, rolling, intervals, fat burn, random, fit test, target HR, constant watts
CSAFE, FitLinxx ready	Yes	Yes	Yes
On-the-fly program change	Yes	Yes	Yes
FitTouch™ Technology	Yes	No	No
Integrated Vista Clear™ digital ready television	Yes - 15" screen size	Yes - 7" screen size	No
Wireless data transmitter	Yes	Yes	Yes
iPod compatible	Yes	Yes	No
Nike + iPod compatible	Yes	Yes	No
Personal fan	Yes	Yes	Yes
TECH SPECS			
Overall dimensions	80"L x 34.5"W x 72"H	80"L x 34.5"W x 72"H	80"L x 34.5"W x 72"H
Maximum user weight	400lbs	400lbs	400lbs
Weight	398lbs	396lbs	395lbs
Shipping weight	437lbs	435lbs	434lbs
Electrical requirements	AC powered	Self-Powered / Power Optional	Self-Powered / Power Optional
WARRANTY			
Frame	7 years	7 years	7 years
JID generator	5 years	5 years	5 years
Parts & labor	3 years CAP	3 years CAP	3 years CAP

CHAPTER 8: A5x, A7x, A7xe ASCENT SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

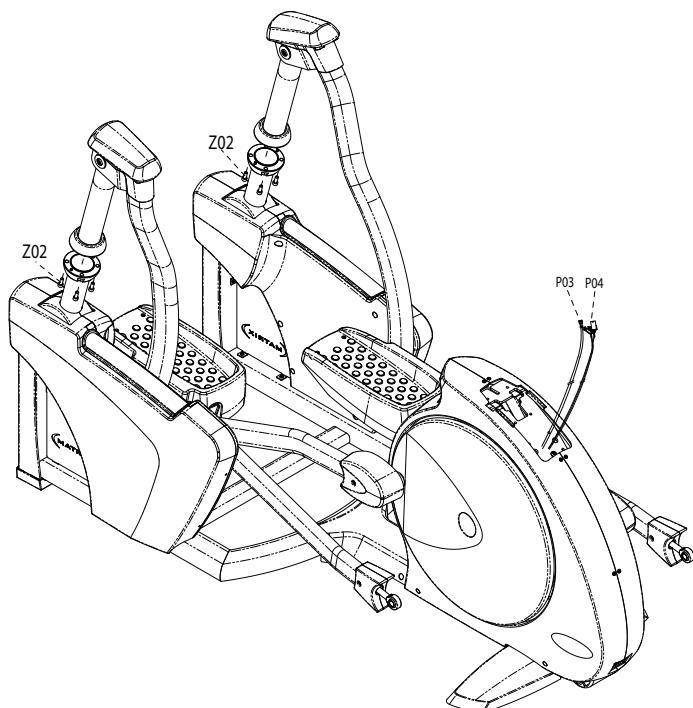
8.2 A5x, A7x, A7xe MODEL REQUIRED FASTENERS

FASTENERS				
REFERENCE	SKETCH	DESCRIPTION	QUANTITY	PACKAGE COLOR
Z01		HEX SOCKET HEAD CAP(M8x15L)	4	YELLOW
Z34		SOCKET HEAD CAP SCREW(M8x25L)	2	BLUE
Z02		HEX SOCKET HEAD CAP(M8x20L)	8	BLACK
Z03		CROSS TRUSS HEAD(M5x10L)	6	WHITE
Z04		HEX SOCKET HEAD CAP(M8x65L)	4	WHITE
Z05		HEX SOCKET HEAD CAP(M8x55L)	2	WHITE
Z06		FLAT WASHER($\varnothing 8.2 \times \varnothing 16.0 \times 1.0$ t)	2	WHITE
Z07		NYLON NUT(M8x1.25P)	2	WHITE
Z08		AXLE	4	WHITE
Z41		SOCKET HEAD CAP SCREW(M5x8L)	5	

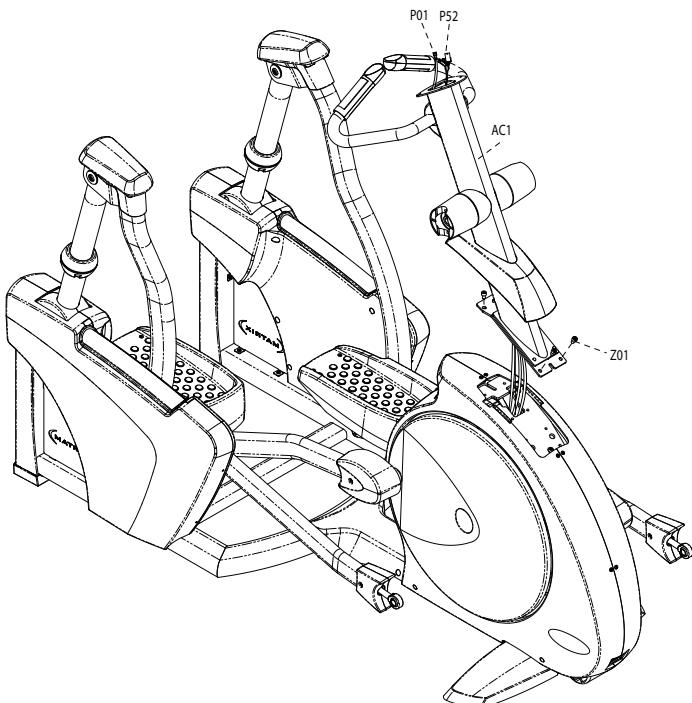
CHAPTER 8: A5x, A7x, A7xe ASCENT SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

8.3 A5x, A7x, A7xe MODEL ASSEMBLY STEPS

STEP 1



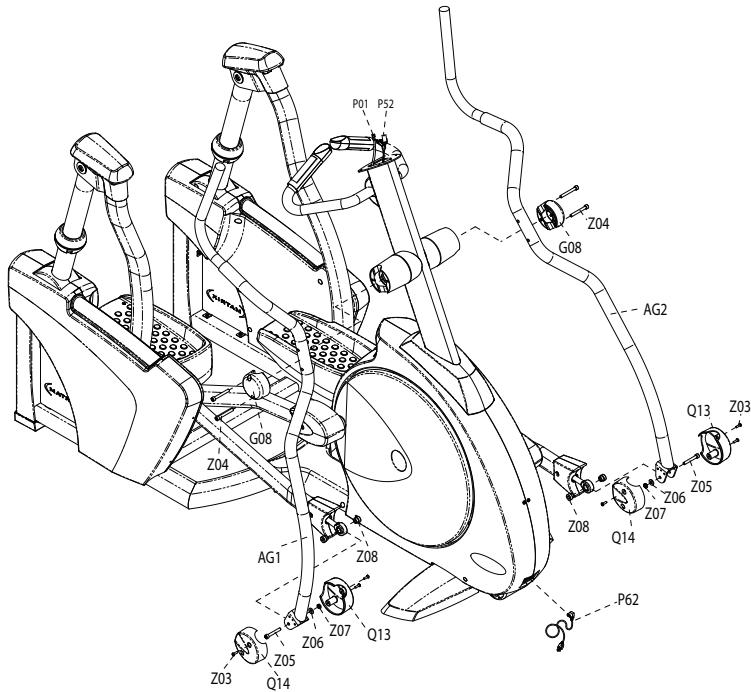
STEP 2



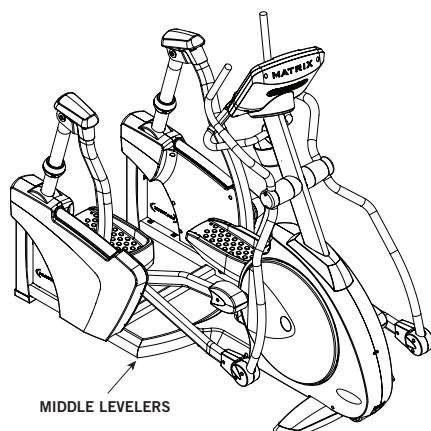
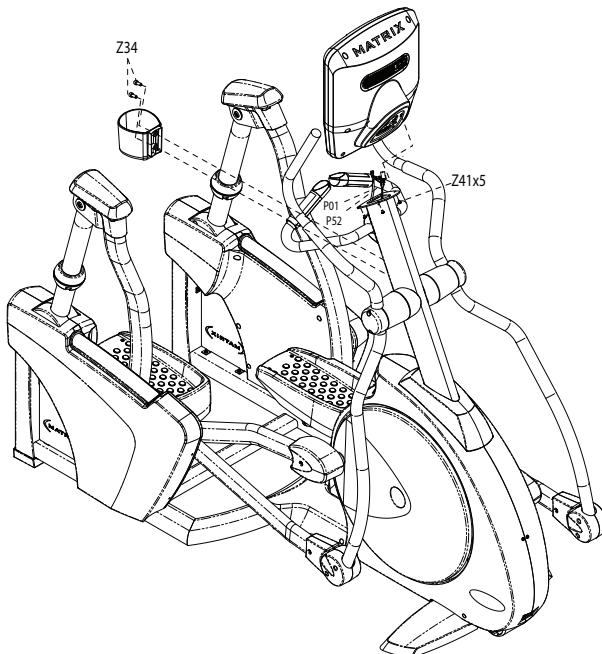
CHAPTER 8: A5x, A7x, A7xe ASCENT SPECIFICATIONS, PARTS, AND ASSEMBLY GUIDES

8.3 A5x, A7x, A7xe MODEL ASSEMBLY STEPS

STEP 3



FINAL ASSEMBLY



When leveling the Ascent Trainer, make sure that the middle levelers (shown above) are completely tightened and flush with the bottom of the machine. Use only the front two levelers to balance out the machine.



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